

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P311630

Luminaire Tested: **24FCZ2-55HE-UNV-L82765-S-CA125-W2A-U-5500K**

Issue Date: 3/3/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

Test Information

Test Method: LM-79-08
Report Number: P311630
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24FCZ2-55HE-UNV-L82765-S-CA125-W2A-U-5500K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS, 0.125" ACRYLIC SHEET
Light Source: (336) 5500K TUNABLE CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment:

<u>Sample No.</u>	<u>Condition</u>	<u>Description</u>
AS-5443-1	Good	WHITE TWIN R-EVOLVE FLOOD
AS-5443-2	Good	REFLECTOR
AS-5443-3	Good	DRIVER
AS-5443-4	Good	UPPER MODULE
AS-5443-5	Good	LENS
AS-5443-6	Good	DRIVER 2
AS-5443-7	Good	TRIM RING

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5524.0 lumens
Efficiency: N/A
Efficacy: 124.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

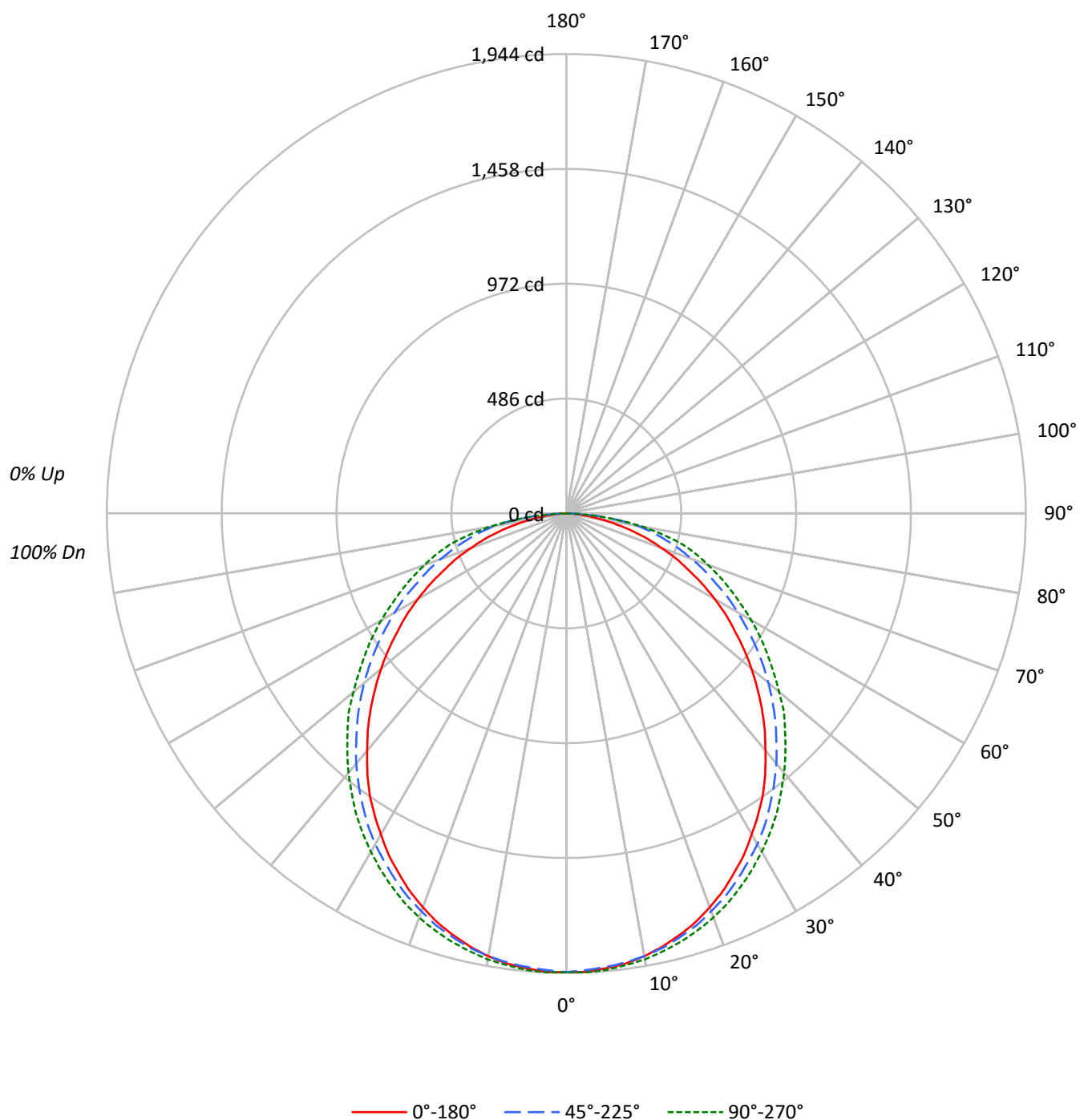
Input Watts (W): 44.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P311630

CATALOG NUMBER: 24FCZ2-55HE-UNV-L82765-S-CA125-W2A-U-5500K

Luminous Intensity Polar Plot





TEST NUMBER: P311630

CATALOG NUMBER: 24FCZ2-55HE-UNV-L82765-S-CA125-W2A-U-5500K

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				0
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		0
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		100
1	108	103	99	95	106	101	97	93	97	93	90		93	90	88		83
2	98	90	83	77	96	88	81	76	84	79	74		81	76	72		69
3	89	79	70	64	87	77	69	63	74	67	62		71	66	61		58
4	82	70	61	54	80	68	60	54	66	59	53		63	57	52		49
5	75	62	53	46	73	61	53	46	59	51	46		57	50	45		42
6	70	56	47	40	68	55	47	40	53	46	40		52	45	40		37
7	64	51	42	36	63	50	42	36	48	41	35		47	40	35		33
8	60	46	38	32	58	46	37	32	44	37	32		43	36	31		29
9	56	43	34	29	55	42	34	29	41	34	28		40	33	28		26
10	53	39	31	26	51	39	31	26	38	31	26		37	30	26		24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2611	2611	2611
5°	2609	2602	2619
10°	2599	2599	2618
15°	2574	2586	2613
20°	2540	2565	2605
25°	2493	2540	2589
30°	2437	2511	2568
35°	2383	2470	2548
40°	2302	2428	2518
45°	2227	2380	2491
50°	2141	2336	2461
55°	2046	2293	2437
60°	1950	2257	2432
65°	1827	2218	2447
70°	1691	2229	2513
75°	1514	2271	2654
80°	1223	2407	2596
85°	922	2113	2059



TEST NUMBER: P311630

CATALOG NUMBER: 24FCZ2-55HE-UNV-L82765-S-CA125-W2A-U-5500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	183.7	3.3
10°-20°	525.0	9.5
20°-30°	789.1	14.3
30°-40°	940.0	17.0
40°-50°	962.0	17.4
50°-60°	866.1	15.7
60°-70°	680.2	12.3
70°-80°	441.4	8.0
80°-90°	136.5	2.5
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1497.8	27.1
0°-40°	2437.8	44.1
0°-60°	4265.9	77.2
0°-90°	5524.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5524.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1941	1941	1941	1941	1941	
5°	1932	1935	1927	1937	1939	184
15°	1848	1853	1856	1872	1876	521
25°	1679	1693	1711	1739	1744	774
35°	1451	1469	1504	1541	1551	905
45°	1170	1198	1251	1298	1309	902
55°	872	911	977	1028	1039	782
65°	574	618	697	754	768	571
75°	291	347	437	497	511	308
85°	60	110	137	133	133	72
90°	0	0	0	0	0	



TEST NUMBER: P311630

CATALOG NUMBER: 24FCZ2-55HE-UNV-L82765-S-CA125-W2A-U-5500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1940.6	1940.6	1940.6	1940.6	1940.6
2.5°	1942.4	1942.4	1933.6	1942.4	1944.1
5°	1931.8	1935.4	1926.6	1937.1	1938.9
7.5°	1921.3	1921.3	1916.1	1926.6	1928.3
10°	1902.0	1903.8	1902.0	1914.3	1916.1
12.5°	1877.5	1881.0	1882.7	1895.0	1896.8
15°	1847.6	1852.9	1856.4	1872.2	1875.7
17.5°	1814.3	1819.5	1828.3	1845.9	1849.4
20°	1773.9	1780.9	1791.5	1814.3	1819.5
22.5°	1730.1	1737.1	1754.6	1775.7	1784.5
25°	1679.2	1693.2	1710.8	1738.8	1744.1
27.5°	1628.3	1640.6	1663.4	1693.2	1700.2
30°	1568.6	1587.9	1616.0	1645.8	1652.9
32.5°	1510.7	1530.0	1563.4	1595.0	1603.7
35°	1451.1	1468.6	1503.7	1540.6	1551.1
37.5°	1382.6	1405.5	1444.1	1480.9	1491.4
40°	1310.7	1338.8	1382.6	1421.2	1433.5
42.5°	1242.3	1272.1	1316.0	1358.1	1372.1
45°	1170.3	1198.4	1251.0	1298.4	1309.0
47.5°	1096.6	1128.2	1184.4	1231.7	1249.3
50°	1022.9	1056.3	1115.9	1165.1	1175.6
52.5°	949.3	984.3	1047.5	1100.2	1105.4
55°	872.0	910.7	977.3	1028.2	1038.7
57.5°	801.9	835.2	907.1	959.8	972.1
60°	724.7	761.5	838.7	887.8	903.6
62.5°	651.0	689.6	770.3	819.4	833.4
65°	573.8	617.6	696.6	754.5	768.5
67.5°	507.1	549.2	633.4	689.6	703.6
70°	429.9	477.3	566.7	624.6	638.7
72.5°	363.2	412.3	501.8	558.0	579.0
75°	291.3	347.4	436.9	496.6	510.6
77.5°	221.1	286.0	377.2	422.9	422.9
80°	157.9	226.3	310.6	331.6	335.1
82.5°	103.5	170.2	229.9	228.1	228.1
85°	59.7	110.5	136.9	133.4	133.4
87.5°	22.8	45.6	49.1	49.1	47.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)